

IN THE CLAIMS:

Please cancel claims 1-7, 11-17 and 23-36 as follows:

1-7. (Canceled)

8. (Original) A heat transfer catheter flow system, comprising:

a heat transfer medium circulation loop including a heat transfer catheter insertable within a patient, a heat transfer unit, and conduits coupled to the heat transfer catheter and heat transfer unit that enable circulation of a heat transfer medium therebetween;

a pump head in contact with heat transfer medium within the circulation loop for circulating heat transfer medium through the circulation loop;

a cassette including the heat transfer unit and containing the pump head;

a controller with which the cassette mates, the controller including a pump motor, wherein the pump head engages the pump motor when the cassette is mated with the controller;

a microprocessor connected to control the speed of the pump motor; and

an electronic feedback loop including the microprocessor that detects a back torque experienced by the pump motor and responsively controls the speed of the pump motor.

9. (Original) The system of claim 8, wherein the controller includes a cavity for receiving the cassette, and wherein the heat transfer unit includes an external heat exchanger including an outer flexible layer at least partly defining a flow channel

therein, the flexible layer expanding outward upon flow of heat exchange medium through the flow channel, wherein the controller includes a heat and/or cold generating element facing the cavity that exchanges heat with the heat exchange medium in the flow channel through the flexible layer, the cavity being sized such that outward expansion of the flexible layer causes the external heat exchanger to be compressively retained within the cavity.

10. (Original) The system of claim 8, wherein the controller includes a cavity for receiving the cassette, the pump motor being positioned adjacent the opening of the cavity.

11-17. (Canceled)

18. (Original) A heat transfer catheter system comprising:
a heat transfer catheter;
a heat transfer unit defining a flow channel between opposite sidewalls, one of the sidewalls being relatively thin and flexible and providing minimal thermal insulation, while the opposite sidewall being relatively non-flexible so as to provide structural support to the heat transfer unit; and
conduits coupled to the heat transfer catheter and heat transfer unit that enable circulation of a heat transfer medium therebetween.

19. (Original) The system of claim 18, further including a controller having a cavity for receiving the heat transfer unit, the controller having a heat and/or cold

generating element therein positioned adjacent the flexible sidewall when the heat transfer unit is inserted within the cavity.

20. (Original) The system of claim 19, wherein the flexible sidewall expands outward upon flow of heat exchange medium through the flow channel, and wherein the cavity is sized such that outward expansion of the flexible sidewall causes the heat transfer unit to be compressively retained within the cavity.

21. (Original) The system of claim 18, wherein the flexible sidewall attaches to the opposite sidewall around their respective edges, and along a series of lines within the edges such that the flow channel defines a serpentine path therethrough.

22. (Original) The system of claim 18, wherein the heat transfer unit further includes a relatively rigid bulkhead including a fluid reservoir and a pump head, the combination of the heat transfer catheter, conduits, flow channel, fluid reservoir, and pump head defining a flow circuit through the system.

23-36. (Canceled)